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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,880	05/04/2001	Hiroki Taniyama	21943-1017	1101
7590 03/01/2004 CROWELL & MORING, LLP P.O. Box 14300 Washington, DC 20044-4300			EXAMINER MACARTHUR, SYLVIA	
			ART UNIT 1763	PAPER NUMBER

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/849,880

Applicant(s)

TANIYAMA ET AL.

Examiner

Sylvia R MacArthur

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10, 16-26, 32, 33 and 35-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 16-26, 32, 33 and 35-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 5/14/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-7, 17-26, 33, and 35-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Hashimoto et al

(US 6,669,809).

Regarding claim 1: Hashimoto teaches a holding member (spin type coating apparatus), a chemical rinse nozzle 12(first nozzle), a slit type blow nozzle (second nozzle), and an exhausting section 7 (a sucking hole). The target is glass substrate 8.

Regarding claims 2 and 33: Figure 1B illustrates that the second nozzle supplies the second process solution to a downstream position in the rotational direction of the target relative to the first nozzle position.

Regarding claim 3: The second nozzle supplies a second process solution to the outer position from the center of the target.

Regarding claim 4: Figure 2 illustrates that the nozzles are at an angle 0 to 90 degrees with respect to one surface of the target.

Regarding claim 5: Both nozzles are in the vicinity of both surfaces of the target.

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Regarding claim 6: Furthermore a plurality of each of the first nozzle, second nozzle, and sucking hole are provided around the target.

Regarding claim 7: The first and second nozzle are integrated by the nozzle assembly 31 and are moveable back and forth by the horizontal arm 32.

Regarding claims 17-26: Hashimoto teaches a substrate carry means in col.4 line 63.

Regarding claims 35-38: Hashimoto teaches that the first and second nozzle provide different process solutions in that the first nozzle is rinse nozzle such as an alkaline developing solution and the second nozzle supplies an inert gas.

***Claim Rejections - 35 USC § 103***

3. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto in view of Yoshio.

The teachings of Hashimoto were discussed above.

Hashimoto fails to teach a blocking member.

Yoshio teaches that a blocking member 3 is provided to the other surface of the target.

See Fig. 1.

The motivation to modify the apparatus of Hashimoto to provide a blocking members is to enhance flow control of the processing fluids.

Regarding claim 9: Yoshio illustrates the blocking member is provided in the vicinity of the edge of the other surface of the target.

Regarding claim 10: Yoshio illustrates the blocking member 3 injects fluid to the edge portion of the other surface of the target.

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Thus, it would have been obvious for one of ordinary skill in the art at the time of the claimed invention to provide a blocking member in the apparatus of Hashimoto as taught by Yoshio.

4. Claims 16 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto in view of Kasai et al (US 6,436,193).

The teachings of Hashimoto were discussed above.

Hashimoto fails to teach the diameter of each hole increasing from one end of the pipe to another end of the pipe.

Kasai illustrates divergent nozzles in Figs. 3 and 6-10. Kasai teaches that divergent nozzles are advantageous in allowing fluid to be uniformly supplied to the entire surface of the workpiece.

Thus, it would have been obvious for one of ordinary skill in the art at the time of the claimed invention to modify the teachings Hashimoto et al to include teaching the diameter of each hole increasing from one end of the pipe to another end of the pipe.

#### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1-10, 16-26, 32,33, and 35-38 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sylvia R MacArthur whose telephone number is 571-272-1438. The examiner can normally be reached on M-F during the core hours of 8 a.m. and 2 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory L. Mills can be reached on 703-308-1633. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*P. Hassenzadel*  
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Art Unit 1763

*2/23/04*